Amendments to the CLAIMS:

Without prejudice, this listing of the claims replaces all prior versions and listings of the claims in the present application:

LISTING OF CLAIMS:

1-18. (Canceled).

19. (Previously Presented) A method of anisotropic plasma etching a laterally defined structure in a silicon substrate using a process gas, the method comprising the steps of:

precipitating at least one passivating material at least on a side wall of the laterally defined structure at least one of prior to the anisotropic plasma etching and during the anisotropic plasma etching;

adding a fluorine-delivering etching gas at least from time to time to the process gas, the fluorine-delivering etching gas including at least a compound selected from the group consisting of ClF_3, BrF_3 and IF_5; and

adding at least one gas selected from the group consisting of C_4F_8 and C_3F_6 to the process gas as a gas forming the at least one passivating material.

20. (Canceled).

21. (Previously Presented) The method of claim 19, further comprising the step of adding at least one gas selected from the group consisting of O_2, N_2O, NO, NO_x, CO_2, and NO_2 to the process gas.

22. (Previously Presented) The method of claim 19, further comprising the step of adding at least one of an additive, a fluoroalkane and NF_3 for consuming the at least one passivating material to the process gas, the at least one passivating material including one of SiO_2 and a fluoropolymer material, and the at least one additive including at least one of CHF_3, CF_4, C_2F_6, C_3F_6, C_4F_8, C_4F_{10} and C_3F_8.

23. (Previously Presented) The method of claim 19, further comprising the step of adding at least one of H_2, He and Ne to the process gas.

24. (Previously Presented) A method of anisotropic plasma etching a laterally defined structure in a silicon substrate using a process gas, the method comprising the steps of:

precipitating at least one passivating material at least on a side wall of the laterally defined structure at least one of prior to the anisotropic plasma etching and during the anisotropic plasma etching;

adding NF_3 to the process gas as an additive for consuming at least one of the at least one passivating material, SiO_2 and a fluoropolymer material;

adding a fluorine-delivering etching gas to the process gas, the fluorine-delivering etching gas including at least one compound selected from the group consisting of SF_6, ClF_3, BrF_3 and IF_5; and

adding at least one gas selected from the group consisting of C_4F_8 and C_3F_6 to the process gas as a gas forming the at least one passivating material.

25. (Canceled).

26. (Canceled).

27. (Previously Presented) The method of claim 24, further comprising the step of adding at least one gas selected from the group consisting of O_2, N_2O, NO, NO_x, CO_2, and NO_2 to the process gas.

28. (Previously Presented) The method of claim 24, further comprising the step of adding at least one of H_2, He and Ne to the process gas.

29. (Currently Amended) A method of anisotropic plasma etching a laterally defined structure in a silicon substrate using a process gas, the method comprising the steps of:

precipitating a passivating material on at least one side wall of the laterally defined structure at least one of prior to the anisotropic plasma etching and during the anisotropic plasma etching; and

adding a light, easily ionizable gas to the process gas to at least one of improve selectivity, reduce charging effects, increase separation between light ions and heavy ions, and reduce or suppress stray trench fields;

wherein a frequency of a substrate voltage is less than about 2 MHz, so that lighter ions can follow a variation of the electrical field more easily due to their lower inertia.

30. (Previously Presented) The method of claim 29, further comprising the step of adding at least one fluorine-delivering etching gas to the process gas, the fluorine-delivering etching gas including at least one of a compound selected from the group consisting of SF_6, ClF_3, BrF_3 and IF_5.

31. (Previously Presented) The method of claim 29, further comprising the step of adding at least one gas selected from the group consisting of SiF_4, C_4F_8, C_3F_6, C_4F_{10}, C_3F_8 and C_2F_6 to the process gas as a gas forming the at least one passivating material.

32. (Previously Presented) The method of claim 29, further comprising the step of adding at least one gas selected from the group consisting of O_2, N_2O, NO, NO_x, CO_2, and NO_2 to the process gas.

33. (Previously Presented) The method of claim 29, further comprising the step of adding at least one of an additive, a fluoroalkane and NF_3 to the process gas for consuming at least one of the at least one passivating material, SiO_2 and a fluoropolymer material, the additive including one of CHF_3, CF_4, C_2F_6, C_3F_6, C_4F_8, C_4F_{10} and C_3F_8.

34. (Currently Amended) A method of anisotropic plasma etching a laterally defined structure in a silicon substrate using a process gas, the method comprising the steps of:

precipitating at least one passivating material on at least a side wall of the laterally defined structure at least one of prior to the anisotropic plasma etching and during the anisotropic plasma etching;

adding at least one fluorine-delivering etching gas to the process gas, the at least one fluorine-delivering etching gas including at least one compound selected from the group consisting of ClF_3, BrF_3 and IF_5;

adding NF_3 to the process gas as an additive for consuming the at least one passivating material; and

adding a light, easily ionizable gas to the process gas to at least one of improve selectivity, reduce charging effects, increase separation between light ions and heavy ions, and reduce or suppress stray trench fields;

wherein a frequency of a substrate voltage is less than about 2 MHz, so that lighter ions can follow a variation of the electrical field more easily due to their lower inertia.

35. (Previously Presented) The method of claim 34, further comprising the step of adding at least one gas selected from the group consisting of SiF_4, C_4F_8, C_3F_6, C_4F_{10}, C_3F_8 and C_2F_6 to the process gas as the gas forming the at least one passivating material.

36. (Previously Presented) The method of claim 34, further comprising the step of adding at least one gas selected from the group consisting of O_2, N_2O, NO, NO_x, CO_2, and NO_2 to the process gas.

37. (Previously Presented) A method of anisotropic plasma etching a laterally defined structure in a silicon substrate using a process gas, the method comprising the steps of:

precipitating at least one passivating material at least on a side wall of the laterally defined structure at least one of prior to the anisotropic plasma etching and during the anisotropic plasma etching;

adding a fluorine-delivering etching gas at least from time to time to the process gas, the fluorine-delivering etching gas including at least a compound selected from the group consisting of ClF_3, BrF_3 and IF_5;

adding at least SiF_4 to the process gas as a gas forming the at least one passivating material; and

adding at least one gas selected from the group consisting of O_2, N_2O, NO, NO_x, CO_2, and NO_2 to the process gas.

38. (Previously Presented) A method of anisotropic plasma etching a laterally defined structure in a silicon substrate using a process gas, the method comprising the steps of:

precipitating at least one passivating material at least on a side wall of the laterally defined structure at least one of prior to the anisotropic plasma etching and during the anisotropic plasma etching;

adding NF_3 to the process gas as an additive for consuming at least one of the at least one passivating material, SiO_2 and a fluoropolymer material;

adding a fluorine-delivering etching gas to the process gas, the fluorine-delivering etching gas including at least one compound selected from the group consisting of SF_6, ClF_3, BrF_3 and IF_5;

adding at least SiF_4 to the process gas as a gas forming the at least one passivating material; and

adding at least one gas selected from the group consisting of O_2, N_2O, NO, NO_x, CO_2, and NO_2 to the process gas.

39. (Previously Presented) The method of claim 29, wherein the light, easily ionizable gas includes at least one of H_2, He and Ne.

40. (Previously Presented) The method of claim 34, wherein the light, easily ionizable gas includes at least one of H_2, He and Ne.